REMARKS

Reconsideration and allowance are requested. The Examiner rejects pending

claims 25 - 53.

Rejection of Claims 23 - 53 Under Section 103

The Examiner rejects claims 25 - 53 under Section 103 as being unpatentable

over Suzan et al. MPEG-7 Standardization Activities ("Suzan et al.") in view of U.S.

Patent No. 6,564,263 to Bergman et al. ("Bergman et al."). Applicants traverse this

rejection and submit that the combination of references fails to teach each limitation

recited in the claims.

We turn first turn to claim 25. This claim recites a method for generating

description records from multimedia content. The third step in the claim requires

generating from the multimedia object descriptions, entity relation graph descriptions

for at least one of the multimedia types. The last limitation recites integrating the

multimedia object descriptions and the entity relation graph descriptions to generate at

least one description record to represent content embedded within the multimedia

content. Applicants submit, contrary to the Examiner's interpretation of the prior art,

that Bergman et al. fail to disclose generating entity relation graph descriptions and

integrating the multimedia object descriptions and the entity relation graph

descriptions to generate at least one description record.

Specifically, the Examiner asserts that Bergman et al. at col. 3, lines 27 - 36,

46 - 51 and 59 - 62; Figs. 3 - 7 and col. 4, lines 20 - 30 teach the entity relation graph

descriptions. Applicants note that at least pages 20 - 22 and Appendix A of the

present specification provide discussion and examples of possible entity relation

graph descriptions. Without inappropriately incorporating any limitations from the

specification, Applicants direct the Examiner's attention to the specification for a context of the use of the term "entity relation graph description." What we shall see is that Bergman et al. fail to disclose this limitation of claim 25.

In Bergman et al., col. 3, lines 27 - 36, 46 - 51 and 59 - 62 disclose their description scheme (DS). The DS is a scheme for describing aggregations of multimedia object comprising audio, images, video, text, time series, and various other modalities. The DS accommodates a number of descriptors in terms of features, semantics or meta-data and facilitates content-based search, index, and retrieval. Bergman et al. explain that "terminal objects" are composite object that are represented to capture features, semantics, spatial, temporal and differing languages as different modalities. Non-terminal object may include multiple terminal objects with spatial, temporal or Boolean relationships and thus allow the description of spatial layout and temporal relationship between various presentation objects including the appearance, disappearance forming and merging of objects etc. In FIG. 3 of Bergman et al., the multimedia content description framework (MMCDF) 301 distinguishes between the terminal objects and the nonterminal object. Col. 6, lines 1 - 4. The InfoPyramid 302 (and FIG. 4) defines the terminal objects and the Inter Object Specification 303 defines the non-terminal objects. Col. 6, lines 58 - 65 and col. 7, line 10-15.

The InfoPyramid 302 provides a data model used in this terminal object, individual modalities with each modality comprising one or more fidelities and addition la modalities such as spatial characteristics. Col. 6, lines 42 - 57. FIG. 3 illustrates the framework of the MMCDF and how it distinguishes between terminal and nonterminal object. Col. 6, lines 58-67.

The issue is whether Bergman et al.'s InfoPyramid, shown in FIG. 3 and FIG. 4 and discussed in columns 7 and 8 is the same thing as entity relation graph descriptions. Applicants respectfully submit that Bergman et al.'s InfoPyramid 302 presents an approach to description multimedia content that dramatically differs from generating entity relation graph descriptors. The InfoPyramid involves describing content in different modalities (like video, text etc.) at different fidelities 401. As shown in FIG. 4, the highest resolution/fidelity level is along the base of the pyramid and the lowest level of resolution/quality is represented at the top of the pyramid model. The "composite object" is generated from combined media objects as disclosed by Bergman et al. based on the semantic and syntax framework specified in an Inter Object Specification (IOS) 303 framework. See FIG. 3 and Col. 6, lines 58 - 65.

Applicants note that a proper interpretation of the entity relation graph descriptions recited in claim 25, when compared to the InfoPyramid disclosed by Bergman et al., should lead the Examiner to conclude that these are different things. Bergman et al.'s InfoPyramid describes a different framework for describing features, semantics, meta-data and other characteristics of multimedia content. Applicants respectfully submit that the Examiner applies Bergman et al.'s general discussion of a DS scheme to the specific limitation of an entity relation graph description but avoids the true scope of Bergman et al.'s disclosure by not considering the pyramid structure of their InfoPyramid. Considering this analysis, it becomes clear that the InfoPyramid is not an entity relation graph description as recited in claim 25 in the context of the present application.

Other differences between Bergman et al. and claim 25 are also apparent. The Examiner asserts that the step of integrating the multimedia object descriptions and

the entity relation graph descriptions to generate at least one description record to

represent content embedded within the multimedia content is shown at col. 6, lines 57

- 64 and col. 8, lines 42 - 67. The IOS 303 is a framework that specifies the semantics

and syntax for combining media objects into composite objects (or nonterminal

objects). Col. 6, lines 63-65. Applicants submit that the Examiner is incorrectly

equating the Bergman et al. composite object with the description record of claim 25.

In claim 25, the description record is the result of integrating the multimedia object

descriptions and the entity relation graph descriptions (which are not disclosed by

Bergman et al. as discussed above). This descriptive structure differs from the

Bergman et al. composite object (or non-terminal object) which is described as a

combination of media objects. A non-terminal object uses one or more terminal

objects as building blocks to describe and define more complex objects, relationships,

or representations. Furthermore, nonterminal objects preferably use additional spatial,

temporal, Boolean rules, or the like to capture the spatial, temporal, Boolean, or other

relationships between multiple terminal or nonterminal objects, or a combination of

terminal and non-terminal objects. Col. 6, lines 6 - 14.

Applicants submit that a proper interpretation of the description record which

includes the entity relation graph description, as recited in claim 25, should lead the

Examiner to conclude that it differs from the composite object of Bergman et al.

Another reason that claim 25 is patentable is that it teaches away from the

integration step of the claim. As mentioned above, the MMCDF 301 in FIG. 3 is

described as distinguishing between terminal and nonterminal objects. The terminal

objects are represented by the InfoPyramid 302 and the nonterminal objects are

represented by the IOS 303. FIG. 3 clearly separates the terminal objects and

nonterminal objects. While the MMCDF 301 can distinguish between them,

Applicants submit that Bergman et al. clearly never integrate the InfoPyramid and the IOS into a single description record. See also, col. 3, lines 37 - 56. In this regard, since the description scheme of Bergman et al. clearly separates these two object description mechanisms, Applicants submit that they fail to teach or suggest each step of claim 25, and in fact teach away from such an integration.

For these reasons, Applicants submit that claim 25 is not obvious in view of Sezan et al. and Bergman et al. Therefore, a Notice of Allowance is respectfully requested.

Claims 26 - 52 each depend from claim 25 and recite further limitations therefrom. Each of these claims is allowable inasmuch as the parent claim is allowable.

Claim 53 recites a method for generating description records from multimedia content. The method includes the step of integrating the multimedia object descriptions and the multimedia object hierarchy descriptions to generate at least one description record to represent content embedded within the multimedia content. As mentioned above with reference to claim 25, the Examiner inappropriately equates Bergman et al.'s composite object with the description record recited in the claims. This argument applies here to claim 53. The Examiner asserts that the composite object of Bergman et al. is the same as an integrated description record comprising multimedia object descriptions and the multimedia object hierarchy. The Examiner equates the multimedia object hierarchy of claim 53 with the InfoPyramid of Bergman et al. The composite object taught by Bergman et al., however, is not formed from integrating the InfoPyramid with multimedia object descriptions. The IOS framework (303) and the InfoPyramid (302) are each a component of the multimedia content description framework (301) as shown in FIG. 3. However, it is the IOS framework

(303) that is disclosed by Bergman et al. that specifies the semantics and syntax for combining media objects into composite objects. Col. 6, lines 63-64. There is no disclosure that the InfoPyramid combines with anything else to generate a composite object. The main purpose of the InfoPyramid is described as preferably for defining methods and criteria for generating, manipulating, transcoding and otherwise transforming the source multimedia content as desired, or as suitable for a particular target platform, device or class of devices. Col. 7, lines 20 - 25. For example, if the receiving device is a PDA that is on a user's wrist with a small LCD screen, the InfoPyramid may include only text and image modalities and relatively few fidelity levels to fit on the LCD screen. Col. 7, lines 44 - 54.

Furthermore, as discussed above relative to claim 25, Bergman et al. clearly teach that the InfoPyramid 302 and IOS 303 are separate and are distinguishable from each other by the MMCDF 301. Therefore, if the Examiner equates the InfoPyramid of Bergman et al. with the multimedia object hierarchy of claim 53, he cannot then argue that Bergman et al. makes it obvious to integrate the object hierarchy with the multimedia object descriptions when Bergman et al. teach away from a similar integration of its InfoPyramid with the IOS.

Therefore, Applicants submit that claim 53 is patentable over the combination of Sezan et al. and Bergman et al. and in condition for allowance.

CONCLUSION.

Having addressed the rejection of claims 25 - 53, Applicants respectfully

submit that the subject application is in condition for allowance and a Notice to that

effect is earnestly solicited.

Respectfully submitted,

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